MICROPROCESSOR-BASED PROBE FOR
INTEGRATED CIRCUIT TESTING

ABSTRACT OF THE DISCLOSURE

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A test system is configured to include a programmable integrated circuit that is coupled between automatic test equipment (ATE) and a device-under-test (DUT). The programmable integrated circuit includes a microprocessor that is configured to accept relatively high-level test commands, typically in the form of a call to a pre-compiled subroutine or macro. Based on these high-level test commands, the microprocessor provides test stimuli to the device-under-test, collects test responses corresponding to these test stimuli, and provides raw or processed test responses to the ATE equipment for subsequent processing. Co-processors and other special purpose components are collocated with the microprocessor to further facilitate test-stimuli generation and test-response collection and processing via the programmable integrated circuit.

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